

THREE NEW SPECIES OF SESIIDÆ.

BY WILLIAM BEUTENMÜLLER.

Sesia tacoma, sp. nov.

Male: Head deep black, palpi yellow above and clothed with long black and yellow hair beneath. Collar narrowly yellow in front. Thorax deep black with a narrow yellow stripe on the patagiæ and a narrow, yellow, transverse mark at the posterior end. Abdomen deep black with a narrow yellow band at the end of the second, fourth and sixth segments. Anal tuft black, fan-like and mixed with a little yellow beneath at the middle. Thorax beneath with a large yellow patch on each side. Femora black with loose scales; tibiæ banded with yellow; tarsi yellow. Anterior coxæ with a yellow line. Fore wings transparent, brown-black at margins and on the veins; space between median vein and inner margin orange-red, also orange-red between the veins on the outer part of wings and border of the cell. Transverse mark large, black and touched with orange-red on each side. Transparent part beyond this mark rounded; elongate and triangular in cell. Fringes brown. Hind wings wholly transparent and narrowly bordered with violet black; fringes brown. Antennæ black. Fore wings beneath largely orange-red except borders and the transverse mark which is much reduced. Hind wing like above, but with an orange line in outer border. Expanse, 19-21 mm.

Female: Head, thorax, legs and abdomen as in the male, but the abdomen is heavier with the bands somewhat broader. Palpi wholly yellow. Fore wings with the orange-red and heavier, giving them a red appearance with narrow black margins. Hind wings with a narrow red margin before the brown fringes. Underside almost entirely golden orange-red and narrowly bordered with brown-black outwardly and the fringes. Transverse mark red, sometimes with a black center. Hind wings beneath similar to the above. Abdomen beneath with three bands at end. Anal tuft black, a little yellow beneath. Expanse, 20-22 mm.

Habitat: 1 ♂, Big Horn Mts., Wyoming, July 11, 1896 (R. P. Currie), Type, U. S. National Museum; 3 ♂, 6 ♀, Mt. Ranier, 6,300 feet, Washington State, August, on *Veratrum viride* (C. V. Piper).

Sesia arizonæ, sp. nov.

Head brown black; collar canary yellow in front; palpi wholly canary yellow. Thorax brown-black with a narrow yellow line on the patagiæ. Abdomen blue black; first segment yellow and with a yellow band at the ends of the 3-7 segments, inclusive, those on the third, fifth and seventh segments twice as broad as the others. Anal tuft largely yellow, black at the sides and beneath. Thorax beneath with a large yellow patch on each side. Abdomen beneath with the bands repeated or only partly repeated. Femora blue-black; tibiæ banded with yellow, tarsi wholly yellow as are also the anterior coxæ. Fore wings violet brown, with the usual transparent spaces, wholly or partly filled with golden-orange and only slightly transparent beyond the golden-orange transverse mark, also streaked with this color between the

veins on the outer part of the wings. Hind wings transparent, fringes fuscous, narrowly orange at base. Underside of fore wings golden-orange with the veins on outer part violet. Hind wings beneath same as above. Antennæ black. Expanse, 22 mm.

1 ♀, Summit of Mt. Union, 9,000 feet, Arizona, July 3, 1887, flying about scrub oak (G. D. Hulst). Coll. Hy. Edwards.

1 ♀, Texas. Coll. U. S. Nat. Mus.

***Pyrrhotænia coccinea*, sp. nov.**

Head black; palpi yellow, tip black; collar narrowly edged with white in front. Thorax and abdomen bronzy-black with a metallic reflection. Antennæ brown-black. Underside of thorax with a scarlet patch on each side. Legs metallic blue-black. Fore wings bright scarlet-red, outer border and a round spot at end of cell bronzy-brown. Hind wings brown. Underside of fore wings light orange, outer part brown, discal spot much reduced. Hind wings beneath same as above. Expanse, 12 mm.

1 ♀, Albuquerque, New Mexico. (Cockerell.) Type, Coll. U. S. Nat. Mus.

Very different from any of the hitherto known species. It may be at once recognized by the bright red fore wings with brown outer border and discal spot.

THE LIFE-HISTORIES OF THE NEW YORK SLUG
CATERPILLARS.—XVII.

PLATE XI, FIGS. 1-12.

BY HARRISON G. DYAR, A.M., PH.D.

***Heterogenea shurtleffii* Packard.**

1864—*Heterogenea shurtleffii* PACKARD, Proc. Ent. Soc. Phil. III, 346.

1882—*Heterogenea shurtleffii* GROTE, Check List. p. 18.

1891—*Heterogenea shurtleffii* and var. *caesonia* SMITH, List Lep. p. 29.

1892—*Heterogenea shurtleffii* KIRBY, Cat. Lep. Het. I, 556.

1894—*Heterogenea caesonia*? NEUMEGEN & DYAR, J. N. Y. Ent. Soc. II, 74.

SPECIAL STRUCTURAL CHARACTERS.

Dorsal space rather narrow and of uniform width, narrowing a little posteriorly, but scarcely so anteriorly; full, rounded, not concave. Sides obliquely concave; subventral space small, retracted. Ridges at first prominent, with large, low, distinct segmentary tubercles; later the subdorsal ridge indicated by the change in direction between